

Cudahy Water Utility Meter Reading System

In 2002 the water utility installed a new, state of the art meter reading system. This was the first system of its kind to be installed in Wisconsin. The Cudahy Automated Meter Reading System (AMR) is a fixed based meter reading system. This means that the meters have a radio attached to them and they send the meter reading out to a data collector located in the city. This data collector saves the reading and then transmits them to city hall once per day. Up until this point all AMR systems used a truck or van equipped with a radio that would drive around each month to collect all the meter readings.

Following is a description of all of the system components.

Water Meter



The water utility uses meters supplied by Sensus, the typical meter in a single family home is a 5/8" meter. Meter sizes in the Cudahy system range from 5/8" to 10". A residential meter can read flows down to .01 cubic feet and does have a built in leak detector.

Meter Telemetry Unit (MTU)



The MTU is a radio device that is wired to the water meter and reads the meter once every 12 hours. After reading the meter it sends the reading to a Data Collector Unit (DCU). The MTU is battery powered with an expected battery life of 20 years.

Data Collector Unit



The DCU picks up the radio reads from each meter and stores them in a memory board. There are 5 DCU's in the city of Cudahy, all are solar powered. Once per day the DCU uses cell phone technology to send the readings to a master computer in city hall. The master computer processes the readings and makes them available to the water utility staff. Below is a sample of the screen showing customer meter reading information.

